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STATE OF COLORADO

COLORADO DEPARTMENT OF HEALTH
Dedicated to protecting and improving the health and environment of the people of Colorado
4300 Cherry Creek Dr. S.
Denver, Colorado 80222-1530
Phone: (303) 692-2000

Laboratory Building
4210 E. 11th Avenue
Denver, Colorado 80220-3716
(303) 691-4700

Roy Romer
Governor
Patricia A. Nolan, MD, MPH
Executive Director

DATE: March 1, 1994

TO: Harlen Ainscough
HMWMD

FROM: Amy Johnson
Diane Niedzwiecki
DCEED

RE: OU4 Part III
Interim Measures/Interim Remedial Action Decision Analysis 2/14/94 Record table

The Division's primary concern with this section is the evaluation of organic analytes. Organic chemicals should not be omitted from any assessment of risk unless: Document

1) they are found to be laboratory contaminants;
2) they are included in a toxicity screen and eliminated as chemicals of concern;
3) they are caused by an offsite point source such as a nearby factory; and/or
4) they are considered ubiquitous nonpoint sources such as automobiles.

However, Page 5-19 Section 5.7.9 of *Risk Assessment Guidance for Superfund Volume I Human Health Evaluation Manual (Part A)* states,

> "In general, do not eliminate anthropogenic chemicals because, at many sites, it is extremely difficult to conclusively show at this stage of the site investigation that such chemicals are present at the site due to operations not related to the site or the surrounding area."

Conversely, DOE justifies the elimination of organics by the lack of sufficient data, i.e. inadequate historical evidence, uncertain laboratory analyses, or exclusion from the target analyte list. (Section III.2.1.4 on page III-14) In essence, if we don't have data, the rationale enables us to act like the contaminant isn't there. How then, can we explain a contaminant detection?

OU4 may be on the path to an accelerated remediation, but risk assessment decisions should still be made separately from risk management decisions.

OU4
Part III
Interim Measures/Interim Remedial Action Decision Analysis

Figure 110.0-1
In addition to including constituents with bio-accumulation potential, those that could leach should also be considered unless HMWMD is assuming that these chemicals will be contained by the remedy.

Contaminants should not be eliminated on the basis of whether or not the exposure pathway is complete to the receptor. This negates possible bio-accumulation.

It is not clear if or where ARARs are considered in the flowchart. The use of ARARs is mentioned on page III-3 line 6-7, and from that, I assume that ARARs will not be considered until the second to last box of the flowchart. All other contaminants will be left in place if they do not have a complete exposure pathway to a receptor. Again, what about bioaccumulation?

Page III-4 line 4
See DCEED comments on Rock Creek in comments on OU1.

Page III-4 line 19-21
Which chemicals were considered background organics and what criteria were used to determine "significant concentrations". It has been the Departments practice to consider all detected organics contamination unless:

1) the contaminant is determined to be a laboratory contaminant
2) it is included in a toxicity screen and eliminated as a chemical of concern;
3) it is caused by an offsite point source such as a nearby factory; and/or
4) it is a considered ubiquitous nonpoint sources such as automobiles.

Nonetheless, RAGS strongly suggests retaining organic analytes until a more comprehensive evaluation can be made.

Figure 111.2-1
The flowchart includes two background comparisons: one under Statistical Evaluation and the other under PRG Development. This is redundant.

What CDH Guidance is used to generate risk-based PRGs for Exposure Scenarios?

Figure III.4 line 44 and III.8 lines 1-13
The percentage of validated data is low, and the percentage of data rejected in the validation process is not provided. This casts doubts on the validity of the dataset both for the application of any statistics and for the adequate quantification of risks to potentially exposed receptors.

Page III-8 line 19-22

A map or a reference to a map should be made so that the reviewer can evaluate the sampling sites.

Page III-9 line 3
Organic analytes are not compared to background samples, because any detection of an organic is considered contamination unless excluded by the criteria listed in comments on page III-4 lines 19-21.

Page III-14 line 25-29
DOE justifies the elimination of organics due to past analytical procedures and data management problems which "could" have been poor. On Page III-8, DOE is using data that has not been sufficiently validated. These flaws could have a compounding affect on the results of this assessment and lead the Department to conclude that there is no risk when in fact there is.

The rationale setforth here suggests that in the absence of data, the regulators can act like there is no risk from a given contaminant.

Figure III.2-5
How was the $>5\%$ detection limit criteria determined?
In the box "Does Re-evaluation Confirm no Significant Difference", what must a contaminant be significantly different from?

Page III-25 lines 19-22
If not considered now, plant uptake should be considered in the baseline risk assessment.

Page III-25 line 37-38
CDH commends DOE on the use of separate intakes for adults and children.

Page III-27 line 10-12
If a toxicity value has been withdrawn, the toxicologist should consult with the RfD working group at EPA about whether or not to use an older value or to review the literature and select or develop a new value.